NATURAL AREAS NEWSLETTER

Issue Number 8

October 1989

The Natural Areas Program is sponsored by Alberta Forestry, Lands and Wildlife

NATURALISTS GIVE LADY'S-SLIPPERS NEW, SAFE HOME

Based on an article by *Chris Donaldson* of The Advocate

During the month of June, naturalists saved about 2500 damsels in distress that were threatened with being crushed in the path of a road expansion.

About 80 people in total, during three Saturdays in June, took shovel in hand and combed a stretch of roadside ditch south of Bowden, from where they dug up the delicate lady's-slipper, one of Alberta's native orchids.

It was the second phase of a rescue operation by Red Deer River Naturalists to save about 5000 wild orchids by transplanting them. Last year, the group saved about 1000 of them.

The odd, perky yellow bloom poked through, but it was mainly buds that showed in the clumps of earth that were carted across the highway to ground near the railway tracks where they were transplanted.

With road construction expected to get underway by fall, the group wanted to get an early start this year, when most of the plants were not in bloom.

Mike McNaughton and friend check crates of yellow lady's-slippers (Cypripedium calceolus) before transplanting.

A member of the Red Deer River Naturalists, Mike McNaughton, said it was coincidental that the operation fell in conjunction with Environment Week.

"They start construction this fall and we thought we would get it started as early as possible this year."

Mr. McNaughton said the project generated a lot of interest from people who wanted to help by transplanting them to their gardens.

But gardeners wouldn't be doing the orchids any favours because the "finicky" plants rarely survive in the black loam of gardens, he said.

"They are finicky. They grow in any kind of environment, but just can't be dug up and transplanted that easily. They go into what we call transplant shock."

Nature groups like the Red Deer River Naturalists and the Alberta Native Plant Council are pushing for provincial legislation to protect plants from threats like chemical sprays and from people digging them up, he said. (Continued on Page 4)

Canadian Council on Ecological Areas (CCEA) Holds Annual Meeting/Workshop in Edmonton

For three days in August this year, a national conservation organization, the Canadian Council on Ecological Areas (CCEA), held its annual meeting/workshop at the University of Alberta in Edmonton.

Staff of the Natural Areas Program, in particular, Peter Lee, helped to organize this event, which was sponsored by Alberta Forestry, Lands and Wildlife and Alberta Recreation and Parks.

The CCEA is an incorporated, non-profit, independent national forum established in 1982 to encourage the selection, protection and stewardship of a comprehensive system of ecological areas in Canada. It draws its membership from federal, provincial and territorial governments, non-government organizations, universities and private citizens.

The meeting had representatives from every jurisdiction across Canada, except New Brunswick and Nova Scotia. Of particular interest to Alberta's Natural Areas Program were the exciting announcements by the Honourable LeRoy Fjordbotten, Minister of Forestry, Lands and Wildlife, made through the Honourable Dr. Stephen West. He stated that new Natural Areas would be established this year. Dr. West also announced a $100 000 budget enhancement to the Natural Areas Program. As well, he praised the contribution of the volunteer stewards and reported our intention to host the first annual volunteer steward meeting/workshop in the spring of 1990. Also, Dr. West indicated that the Government of Alberta would soon be looking into endangered species legislation for Alberta. All of these political announcements are welcome news for Natural Areas and will benefit the volunteer stewards. (Continued on Page 2)

CCEA (Continued From Page 1)

The CCEA's meeting/workshop had a number of other interesting sessions, including: the dramatic effects of global warming on Canada's environment over the next 50 years (i.e., Edmonton may be in the middle of a grassland belt in your grandchildren's time); the long-term problems of practically protecting sites, such as parks and natural areas, once they have received legal recognition; management issues on protected lands; how to use computers; and problems and success in protecting portions of Alberta's prairie and boreal regions. There was even a social evening at Fort Edmonton Park, where guests ate buffalo meat and listened to "fiddle" music.

If you would like more information on the CCEA in general, or the August meeting/workshop in particular, please contact Peter Lee at the Natural Areas office in Edmonton (telephone 427-5209).

Important Natural History Studies Funded by Alberta Forestry, Lands and Wildlife

Each year, the Natural and Protected Areas Section has a small budget available to fund a variety of projects. This year, studies of regional environmentally significant areas (ESAs), site biophysicals and individual species have been initiated.

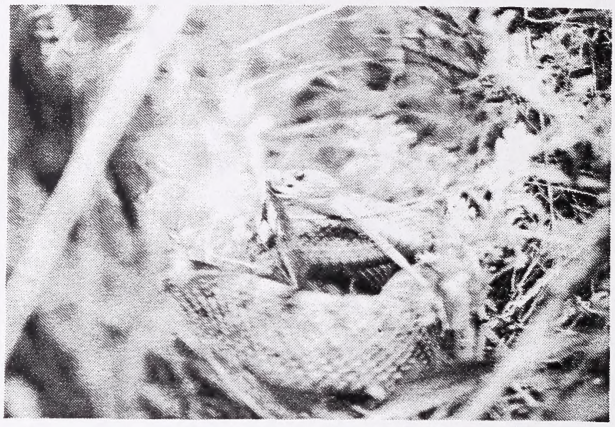
ESA studies are conducted on a cost-shared basis in cooperation with regional planning commissions and the Resource Information Branch, Land Information Services Division of Alberta Forestry, Lands and Wildlife. This is a long-term program to identify and rank the significance and sensitivity of important natural features in the province. Several municipalities have been inventoried. This year, the Red Deer Regional Planning Commission is conducting an ESA for the County of Red Deer. Similarly, Yellowhead Regional Planning Commission has initiated an ESA for the County of Barrhead. Edmonton Metropolitan Regional Planning Commission is tentatively planning a study for the County of Leduc in the fall.

The results of these studies are used for planning purposes by the regional planning commissions and by the Natural and Protected Areas Section to identify potential areas requiring protection. Most of the studies are at a reconnaissance level; thus, further assessment is required to determine exact boundaries of any sites that may be considered for natural area status.

A limited number of site biophysical surveys are conducted each year to provide baseline data for management purposes. North Cooking Lake Natural Area east of Edmonton, Spruce Island Lake Natural Area near Boyle, Outpost Wetlands Natural Area south of Cardston, and Bellis Natural Area, near Smoky Lake have been targeted for biophysical assessments this year. A significant features assessment of the Milk River Canyon Natural Area is also in progress. In addition, planning for an interpretive trail at Bellis is underway. The planning and development of the trail is being done by the **Canadian Parks and Wilderness Society**, the volunteer stewards for this site.

A reconnaissance study of the fescue grassland region has also been initiated. It will identify the remaining native fescue grasslands in the northern fescue grassland and southern central parkland natural regions. Valuable information will be obtained on the extent and condition of this threatened ecosystem.

In cooperation with Alberta Fish and Wildlife, Watchable Wildlife Section, the Natural and Protected Areas Section has funded surveys of the mountain plover and western hognose snake in southeastern Alberta. The mountain plover is on the Committee on the Status of Endangered Wildlife in Canada's (COSEWIC) list as an endangered species. The study on western hognose snake will provide important information on the distribution of this secretive and little known species.



Western hognose snake (Heterodon nasicus)

The results of all of these studies will be produced as technical reports. The reports should be available for public distribution in late spring, 1990.

Test your knowledge of Natural Areas!

(Answers on Page 4)

1. What natural area has the northernmost badland features in the province?
2. The backdrop painting for the grizzly diorama at the Provincial Museum of Alberta is based on the scenery at what natural area?
3. What is the most significant feature at Red Rock Coulee Natural Area?
4. In what natural area are 15 of Alberta's 22 species of orchids found?
5. What natural area provides habitat for the short-horned lizard?
6. What is the largest designated natural area? How large is it?
7. What natural area forms part of a RAMSAR site (internationally recognized wetland)?
8. What is "Close To The Land"?
9. What are the three main duties of volunteer stewards?
10. Which two designated natural areas are located on the Alberta-Montana border?

Animal Tracks Part 2:

(Part 1: Canids was in Issue Number 5)

The Ursines

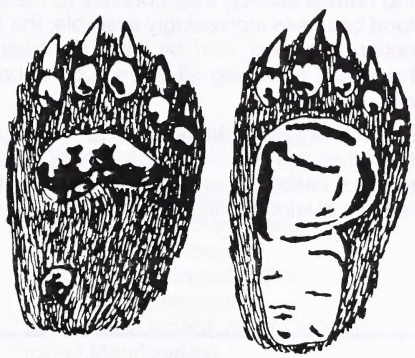
In part two of this series we will talk about the bears, or Ursines, of which all members are plantigrade, that is they walk on the ventral surface of the entire foot. Like the Canids, the feet of bears are protected by fur and tough pads, and have nonretractable claws. This similarity with members of the dog family might lead to some confusion regarding very young cubs, but for the most part, infant bears are always with their mother. Orphaned cubs seldom survive very long.

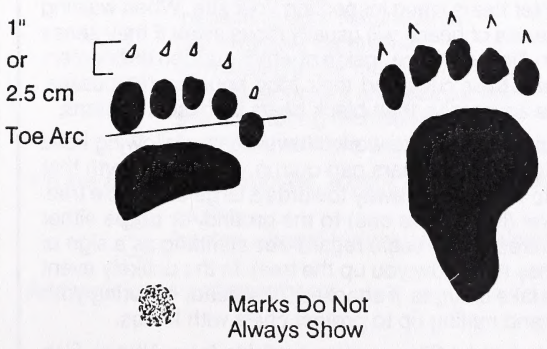
In Alberta, we have two species of bears, the black bear (Ursus americanus) and the grizzly bear (Ursus arctos). The tracks of these bears are very similar in shape and, depending on the age, sex, individual variation and condition under which they were found (mud, sand or snow), may appear to be similar in size.

The "big toe" or "thumb" of these animals is on the outside of the paws, unlike that of a human which is on the inside. In dust or shallow mud, the "little" or inside toe mark may be absent or very faint, giving the impression of a four-toed track. To identify bear tracks, we must first locate them. The grizzly bear prefers Alberta's more open areas, high in the mountains and in the north. Black bears can be found throughout most of Alberta's forested land.

BLACK BEARS *Ursus americanus*

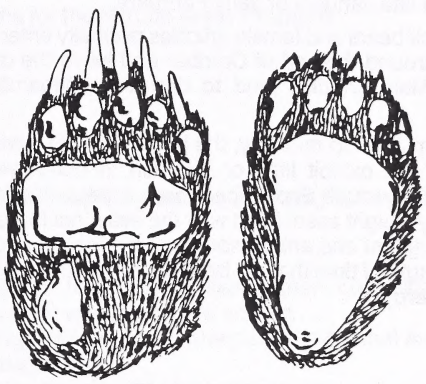
The print left behind by an adult black bear can be as wide as 8.75 cm to 10 cm (3.5 to 4 in.), and may be as long as 17.5 cm (7 in.) when the heel portions are visible. Black bears have a greater toe arc, wider toe separation and shorter claws than grizzly bears.

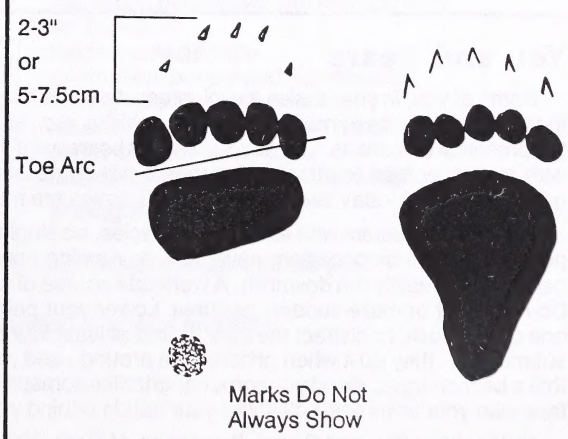




GRIZZLY BEARS *Ursus arctos*

The grizzly bear's track can be as wide as 13.75 cm to 15 cm (5.5-6 in.) and may be as long as 24 cm (9.75 in.) long. Claw marks are almost always shown on both back and front paws, but like the black bear track, the front heel mark rarely shows. The toes of the grizzly bear are closer together than those of the black bear, and the toes' arc is less.





INSERT A

Bear Necessities For The Winter

by Sylvie Comeau

Winter is an unproductive time in the forest. Most plants are dormant, as well as many animals. Reduced food supply during winter, together with decreased mobility and increased energy needs to maintain body heat, represents a real threat to the survival of many mammals. Denning and its associated behavior, hibernation, becomes some animals' best defense. This evolutionary response to the winter situation is seen especially in bears as a four- or five- month "nap".

With the coming of fall and its crisp short days, bears begin to search for a denning site. A suitable site may be under a tree stump, beneath tree roots, in a brushy thicket, or in a hole in a hill. As a rule, black bears den at relatively low elevation and in well-forested areas. Grizzlies, on the other hand, den at about the 2200 metre level, near the treeline, on north- or east- facing slopes. This way, there is less sunlight to thaw the snow covering the den entrance. Melting snow would make the den uncomfortably damp and minimize the insulation provided by the lining of evergreen bows and thick layers of dried grasses.

Most dens are only large enough to accomodate a bear when it is curled up. Generally, females line their dens with grass, ferns or leaves, while males usually do not. This extra effort to be warm and comfortable seems to be made primarily by females, no doubt for the benefit of the young that will be born in late January or early February.

Black bears and female grizzlies normally enter their winter dens around the end of October and leave the dens around April. Male grizzlies tend to den from December through March.

From June to mid-July, the bears feed on a wide range of foods, but exhibit little or no gain in body weight. From mid-July through September, there are substantial increases in body weight associated with the seasonal increase in food quality (plant and animal sources), availability and the extensive length of time that the bears spend in feeding to accumulate energy.

Stuffed and drowsy, the bears greet winter well insulated with fat and fur, and they will usually sleep like drunken lords during the cold winter months. While in the den, the bears metabolize stored body fat. This requires no intake of water and produces no wastes requiring defecation or urinary excretion. However, water is expelled through respiration. Body fat remains the sole energy and water source until late March or April.

Contrary to popular belief, bears are not true hibernators: body temperature, pulse, respiratory and metabolic rates stay nearly normal, whereas a true or "deep" mammalian hibernator reduces its body temperature, heart rate and metabolism until body temperature is within 1 degree C of the air temperature. Bears experience a body temperature reduction of only 7-8 degree C, a cardiac rate reduction of 25% to 40%, a metabolic reduction of around 50% and a reduction in oxygen consumption. A weight loss of 20% to 27% of fat occurs.

Most bears arouse to change position and stretch. If prodded or stimulated sufficiently, they will awaken also. In the dead of winter, bears have been seen shuffling grumpily through the forest. With the coming of spring and warmer weather, bears emerge from the dens and search for food. Their disposition at this time may be rather unfriendly since they are thin and hungry after their long period of dormancy. A well-fed bear from the previous autumn will still have sufficient body fat to substain it until new seasonal growth appears. They eat sparingly for several weeks. Their movements are slow and deliberate. During this transition stage from hibernation to normal activity, they continue to metabolize body fat. As food becomes increasingly available, the bears' food consumption increases. And by June, the bears have become active again, exploiting all the energy sources available to them.

The entire year is defined in this cyclic phenomenon of metabolic stages that dictates the bears' behavioral patterns. This cycle enables them to make it through the rigorous conditions of winter, ensuring the survival of the species.

You and Bears

Some of you, in your duties as volunteer stewards may encounter bears when inspecting your site. When walking in the bush it is wise to make noise - talk, whistle, etc., as both species of bears will usually move away if they sense the presence of humans. Like all wild animals bears have a fight - or - flight distance, inside of which sudden encounters with man may lead to attack. Also, bears will aggressively defend their cubs and their food sources (carcasses, garbage dumps) - stay away from these. Grizzlies are much more aggressive than black bears in these situations.

In close encounters with either bear species, no single action is guaranteed to work. However, the following have proven effective on occasion; never run, as running may start a chase, and bears can outrun you (it is a myth that bears cannot easily run downhill). A workable course of action is to back slowly away towards a large climbable tree. Do not shout or make sudden gestures. Lower your pack or jacket (if you have one) to the ground, or drape either one over a bush, to distract the bear. Climb at least four to five metres (black bears regard tree climbing as a sign of submission - they do it when grizzlies are around - and , hence, may not follow you up the tree). In the unlikely event that a bear charges, stand your ground; grizzlies sometimes make fake charges. If attacked, play dead, covering your face with your arms while clasping your hands behind your neck and curling up to protect chest with knees.

(Taken from *You and Bears, Prevention of Bear Problems at Industrial Sites* poster; available from Alberta Fish and Wildlife).

As a Volunteer Steward
You are invited to the
First Volunteer Steward Conference
in the spring of 1990...
and we need to hear from you!

The Natural Areas Program staff are now planning the first Volunteer Steward Conference which will provide the opportunity for you to meet each other and improve your stewardship skills. As well, you will have a chance to inform the Natural Areas staff of your needs, concerns and dreams for the Natural Areas Program.

The first half of the preliminary conference plan is presented below. The other half, your half as a steward, is missing. Please add your responses and then send them to the Natural Areas Program by November 13, 1989. Your input is essential to the development of a successful conference. The proposed program is described below.

1. The conference will be designed to meet the following goals:
   a. provide an opportunity for volunteer stewards to meet each other and form working relationships;
   b. encourage the two-way sharing of information and resources between the stewards and the staff of the Natural Areas Program and Alberta Forestry, Lands and Wildlife;
   c. provide opportunities for stewards to improve their skills and knowledge of stewardship, natural resource management and the Natural Areas Program;
   d. promote and recognize the current accomplishments of the Natural Areas Program and the volunteer stewards; and
   e. inform stewards about, and involve them in, the future plans for the Natural Areas Program.

   What else would you like to see addressed? Ideas? Comments?

2. The following program sessions are proposed. Indicate your interest in each topic by placing an H (high), M (medium) or L (low) next to each topic.

Field Identification Studies
- ☐ birdwatching for beginners
- ☐ advanced birdwatching
- ☐ moss and fern identification
- ☐ mammal identification
- ☐ reptiles and amphibians of Alberta
- ☐ insect identification
- ☐ introduction to plant identification

Site Management
- ☐ inspecting your Natural Area
- ☐ site inventory techniques
- ☐ developing a site management plan
- ☐ trail development and maintenance
- ☐ site monitoring techniques
- ☐ managing multiple use Natural Areas

People Skills
- ☐ leading your Natural Area management committee
- ☐ constructive ways to handle conflict
- ☐ involving neighbours and the public in Natural Area management
- ☐ managing people and site emergencies

Other Topics
- ☐ leading safe daytrips
- ☐ orientation for new and old stewards
- ☐ finding your way: orienteering
- ☐ how to safely visit mountain natural areas
- ☐ winter outdoor safety skills
- ☐ introduction to Alberta's natural regions
- ☐ photography

We are also planning movies, a book sale and other special events. Which of these interest you?
- ☐ movies
- ☐ books: natural history, nature interpretation, leading childrens' activities

Add your ideas and comments:

3. When would be the best time(s) for you to attend this conference? February? April? May? State the best times for you and when we should avoid hosting the conference. Besides Easter, are there any other conferences or events that may present a conflict?

4. How long should the conference be? Check which you would prefer:

☐ 1-day conference ☐ 2-day conference ☐ 3-day conference

If it is a one day conference should it be: ☐ Friday ☐ Saturday ☐ Sunday

If it is a longer conference, should it be: ☐ Friday/Saturday ☐ Saturday/Sunday ☐ Friday p.m./Sunday

5. Would you be able to attend this provincial conference if it is hosted in the Edmonton area? If you are unable to attend, please give reasons why.

6. If you are willing to help with this conference, identify ways in which you could participate. Are you available to help:

☐ plan the conference ☐ lead sessions ☐ introduce speakers
☐ take photographs ☐ lead informal nature walks
☐ or help in some other way relevant to the conference?

7. Please recommend resource people who could lead sessions or assist in other ways with the conference. What books, videos or other resource materials should be made available at the conference?

8. The Natural Areas Program is prepared to pay for overall conference management and operating costs. Are you willing to provide your own transportation and to pay for meals and accommodation? Let us know what your limits and your needs are so that we can design a conference plan and fee schedule which will work for you. Comments please:

9. What else would you like us to know? Add your comments. (Why don't you... I've always wanted to know... Teach me how to... Don't forget to... And further more... .)

Please help us to follow up on your comments by completing the following information:

Your name: _____ Natural Area: _____

Address: _____

_____

_____ Telephone: _____

Thank you for your comments. Return this form to the following address by November 13, 1989.

Sandra Myers
Volunteer Steward Conference
Natural Areas Program
4th Floor, Petroleum Plaza South
9915 - 108 Street
Edmonton, Alberta
T5K 2C9

FAX: 422-4244
Telephone: 427-5209

Steward Profile: Carol Smith

Inspiring a Neighbourhood

by Jean Funk

A Cooper's hawk recently fledged from the nest, a wood violet unfolding its first petals and a moose calf tentatively taking its first steps - Carol Smith has seen all these wonders, within the North Cooking Lake Natural Area. Carol has observed the seasonal changes of this area's 164 ha of aspen forests, spruce bogs and morainal lakeshore as a steward for the past three years and as a neighbour for the past eight. Her fondness of natural places started many years ago.

Carol's interest in nature was kindled by her father. "He loved to lie in a hammock and listen to the birds. He took my brothers and me swimming and hiking and encouraged us to enjoy the outdoors." Carol later studied biology, zoology and education in university. Subsequently, she shared her enthusiasm with elementary students in Saskatchewan. Now the theme of conservation characterizes her hobbies, work and volunteer efforts. Carol is the Coordinator of ConservACTION, Strathcona County's new wildlife habitat conservation program. Through this work, she spreads her enthusiasm for private land conservation. As a steward, she actively promotes public land conservation.

Carol Smith's friend, sitting on her shoulder, has just been banded by Ray Cromie as part of a long term owl banding project.

"Becoming a steward gave me a chance to turn over my records to the Natural Areas Program so that more people could see the importance of this place. The North Cooking Lake Natural Area is just one mile from my home. I had been visiting it about once a week when I learned about the program and I immediately decided to become involved," remembers Carol. She shares her concern and enthusiasm with other users and neighbours. "Two neighbourhood girls enjoy two to three hour trail rides in the Natural Area. They stay on the trails and appreciate having a clean and safe place to ride their horses." Hikers, hunters, birdwatchers, cross-country skiers, snowmobilers and the occasional pre-teen trailbiker cooperatively share the Natural Area. "I discuss their interest in this area, ask them to stay on the trails and encourage them to respect other users. The North Cooking Lake Natural Area is surrounded by developed lands; it is the only undeveloped place that people have to explore." Carol adds that neighbours of the Natural Area "like the idea that someone in the county looks after it." One neighbour is concerned that the fence is in poor condition and that trespassing could be a problem. Another neighbour, the Soulliers, have set aside 40 acres in their natural state, adjacent to the Natural Area. Through personal conversations with users and neighbours, Carol is able to convey their concerns and needs to the Natural Areas Program staff.

As for the younger visitors - "I get really excited when I go out with children. It's always a gamble - you never know what you'll see," laughs Carol. The Cooper's hawk, which is on the COSEWIC rare species list, has nested at the natural area for the past three years. Red-tailed and sharp-shinned hawks, great horned owls, sharp-tailed sparrows and pileated woodpeckers are commonly seen. There are good populations of white-tailed deer, coyotes and porcupines. A moose had two calves last year but only one calf this year. Rare ferns and orchids are being identified currently. There are eight major bogs in the North Cooking Lake Natural Area, and each one is a little different. "The children see birch and aspen trees and even a white spruce tree that's more than 70 years old. It's an excellent area for people with the spirit of adventure to learn

(Continued on Page 4)

Carol Smith (Continued From Page 3)

about our natural world. Very often I go by myself to get recharged and to feel 'plugged in' to this very special place. It's almost spiritual," says Carol as she thinks aloud about how important this space is to her and her fellow users.

The personal dedication of the Natural Areas Program staff makes being a steward rewarding to Carol. "Stewards are the eyes and the heart of the Natural Areas - we're the folks who take the pulse of these spaces." Carol feels the newsletters are really important because it keeps people in touch with each other and the program. She adds that a conference would be a helpful way for people to get to know each other and to give lots of input to the Natural Areas Program. "By working together we can make this great program even stronger," concludes Carol.

ConservAction

Initiated by Strathcona Recreation, Parks and Culture as part of the county's outdoor master plan, ConservAction objectives are the following:

-enhance wildlife habitat opportunities;
-conserve soil and water through proper habitat management;
-stimulate resident's awareness of their environment by hands-on involvement in conservation projects; and
-provide employment for local people plus experience in natural resource management.
-construct nesting and resting areas for waterfowl;
-seed shorelines to improve upland waterfowl habitat;
-plant shelterbelts for wildlife;
-construct upland nest boxes;
-fence sloughs and streambanks to control livestock access; and
-maintain quality wildlife habitat.

County landowners, organizations, corporations and educational institutions in the county are all eligible to apply for projects under the program.

ConservAction is sponsored by Buck for Wildlife, Alberta Fish and Wildlife, the Recreation, Parks and Wildlife Foundation, and Alberta Career Development and Employment. For further information, contact Carol Smith at the address below:

Strathcona County
Recreation, Parks and Culture
2025 Oak Street
Sherwood Park, Alberta
T8A 0W9
Telephone: 467-2211

Test Your Knowledge Answers

1.Kleskun Hill Natural Area (east of Grande Prairie).

2.Beehive Natural Area (southwest of Calgary at headwaters of Oldman River on the continental divide).

3.Large red, round sandstone rocks (concretions).

4.Wagner Natural Area (west of Edmonton).

5.Milk River Canyon natural Area in southeast Alberta on the Alberta - Montana border.

6.Beehive Natural Area; 5662 hectares

7.Beaverhill Natural Area (east of Tofield).

8.A 12 - minute slide show of the Natural Areas Program (it is available for loan).

9.Observe, Record and Report on the conditions and activities on their assigned natural area.

10.Outpost Wetlands, south of Cardston, and Milk River.

The correct answer to the previous issue's Word Search contest is: Bastard Toad Flax.

Gerry Wheeler from the Forest Land Use Branch, Alberta Forest Land Use Branch was the first person to send in the correct answer. He wins a complete set of the "Walk on the Wild Side" buttons. Congratulations, Gerry!

Lady's- Slippers (Continued From Page 1)

In the meantime, the group tries to educate the public about taking them from their natural habitat, to prevent them from becoming an endangered species, said Mr. McNaughton.

People are starting to become more aware that certain species of wild plants are diminishing, said Nan McKernan of Treefriends in Olds.

Treefriends, along with the Torrington Junior Foresters and people from the Calgary Zoo, helped with the transplanting.

She said her group received many calls from local people who were concerned about the orchids when they heard about the rescue operation.

Donna Balzer, a horticulturist with Calgary Zoo, said the zoo has established a seed exchange program that includes seeds from wildflowers to discourage people from digging plants up in the wild.